

a flat disc-shaped electrical parts mounting base board fixed on the rotation shaft such

a¹ amended. that the rotation shaft perpendicularly intersects the electrical parts mounting base board;

a commutator including a contact electrode part with a plane conductive layer pattern and connected to the rotor coils, the contact electrode part being formed on one surface of the electrical parts mounting base board; and

a pair of electrode brushes in sliding contact with the contact electrode part of the commutator and configured to supply electric power to the rotor coils through the commutator.

a² 12. (Amended) A direct current motor, comprising:

a rotor including a rotation shaft and rotor coils;

means for applying a magnetic field to the rotor;

a flat disc-shaped electrical parts mounting base board fixed on the rotation shaft such that the rotation shaft perpendicularly intersects to the electrical parts mounting base board;

a commutator including a contact electrode part with a plane conductive layer pattern and connected to the rotor coils, the contact electrode part being formed on one surface of the electrical parts mounting base board; and

means for supplying electric power to the rotor coils through the commutator, the supplying means being in sliding contact with the contact electrode part of the commutator.

a³ 20. (Amended) A method of making a direct current motor with a rotor including a rotation shaft and rotor coils, a stator, a flat disc-shaped electrical parts mounting base board, a commutator including a contact electrode part, and a pair of electrode brushes, said method comprising the steps of:

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forming the contact electrode part of the commutator with a plane conductive layer
pattern on one surface of the electrical parts mounting base board;

fixing the electrical parts mounting base board on the rotation shaft such that the
rotation shaft perpendicularly intersects the electrical parts mounting base board;

providing the pair of electrode brushes on a support base; and

assembling the support base onto the electrical parts mounting base board and the
rotation shaft such that the electrode brushes are in sliding contact with the contact electrode
part of the commutator in the same plane.

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26. (Amended) An apparatus having a direct current motor, comprising:

a rotor including a rotation shaft and rotor coils;

a stator configured to apply a magnetic field to the rotor via magnetic poles of the
stator opposing magnetic poles of the rotor;

a flat-disc-shaped electrical parts mounting base board fixed on the rotation shaft such
that the rotation shaft perpendicularly intersects the electrical parts mounting base board;

a commutator including a contact electrode part with a plane conductive layer pattern
and connected to the rotor coils, the contact electrode part being formed on one surface of the
electrical parts mounting base board; and

a pair of electrode brushes in sliding contact with the contact electrode part of the
commutator and configured to supply electric power to the rotor coils through the
commutator.
